

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims**

1. (Original) An as-grown single crystal of alkaline earth metal fluoride produced by a single crystal pulling method and having a straight barrel part diameter of not less than 17 cm and a light transmittance, as measured at a wavelength of 632.8 nm, of not less than 80%.
2. (Original) The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 1, wherein the main crystal growth plane is the {111} plane.
3. (Original) The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 1, wherein the main crystal growth plane is the {100} plane.
4. (Currently Amended) The as-grown single crystal of alkaline earth metal fluoride as claimed in ~~any one of claims 1 to 3~~claim 1, wherein the straight barrel part has a length of not less than 5 cm.
5. (Currently Amended) The as-grown single crystal of alkaline earth metal fluoride as claimed in ~~any one of claims 1 to 4~~claim 1, wherein the alkaline earth metal fluoride is calcium fluoride.
6. (Currently Amended) The as-grown single crystal of alkaline earth metal fluoride as claimed in ~~any one of claims 1 to 4~~claim 1, wherein the alkaline earth metal fluoride is barium fluoride.
7. (New) The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 2, wherein the straight barrel part has a length of not less than 5 cm.
8. (New) The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 3, wherein the straight barrel part has a length of not less than 5 cm.
9. (New) The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 2, wherein the alkaline earth metal fluoride is calcium fluoride.

10. (New) The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 3, wherein the alkaline earth metal fluoride is calcium fluoride.

11. (New) The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 4, wherein the alkaline earth metal fluoride is calcium fluoride.

12. (New) The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 2, wherein the alkaline earth metal fluoride is barium fluoride.

13. (New) The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 3, wherein the alkaline earth metal fluoride is barium fluoride.

14. (New) The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 4, wherein the alkaline earth metal fluoride is barium fluoride.